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ABSTRACT

The research project described in this paper was conducted for three purposes: (1) to identify the program evaluation needs of secondary vocational educators in Wisconsin; (2) to identify those components of the state's previous evaluation system that educators wanted to keep; and (3) to develop a conceptual framework for revising Wisconsin's secondary vocational education program evaluation system. Input sessions with Wisconsin vocational educators were held in Menomonie, Madison, Appleton, and Wausau. A total of 34 educators participated. The suggestions from each input session were incorporated into a survey form that was mailed to everyone who signed up for a session. The survey respondents recommended that the self-evaluation, onsite review, and evaluator training components of Wisconsin's previous vocational education evaluation system be retained. They also indicated a need for more flexibility in the evaluation process, additional emphasis on evaluating local plans, and expansion of the evaluation process to include the school-to-work transition program. The conceptual framework developed incorporated systems and total quality management concepts and gave local school districts greater flexibility in selecting evaluation team members and evaluation techniques. (Appended are summaries of the four input sessions, a sample survey form, and lists of the input session and project advisory committee members.) (MN)

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ED 361 512

Final Report

Conceptual Framework for Revising the Secondary Vocational Education Program Evaluation System

funded by

A Grant from the
Wisconsin Council on Vocational Education

Conducted by

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Conceptual Framework for Revising the Secondary Vocational Education Program Evaluation System

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Also, this research would not have been possible without the many people who participated in the vocational program evaluation process from 1976-1991 and the Wisconsin Department of Public Instruction's financial support during those years. They demonstrated that evaluation is an integral part of curriculum development and improvement.

To all those who helped-thank you!

Orville Nelson

Abstract

After fifteen years, the Wisconsin Secondary Vocational Education Evaluation Project was phased out in 1991. With the reauthorization of the Carl Perkins Vocational Education Act at the federal level, the distribution of funds was changed and the Wisconsin Department of Public Instruction was no longer able to fund the evaluation project. A number of secondary vocational educators voiced concern about the loss of the evaluation project and the services it provided. They encouraged CVTAE staff members to develop a revised evaluation system and make it available to secondary schools. Many of these vocational educators also offered to help with the revision process.

The purpose of this project was to identify the program evaluation needs of secondary vocational educators in Wisconsin. In addition, the project was designed to capture the expertise and evaluation experience of a number of secondary vocational educators. The project was designed to identify the components of the previous evaluation system that educators wanted to keep and to obtain information on changes that should be made. Four input sessions were conducted around the State of Wisconsin to gather this input. These were completed during the fall of 1992. After the input session had been completed, the suggestions from each session were combined and a survey form was developed. This survey was mailed to everyone who signed up for one of the input sessions. Recipients of the survey were asked to place priorities on each of the suggestions given.

Participants in the input sessions and survey recommended that the self-evaluation, on-site review process, and training for evaluators be retained. They also indicated a need for a more flexible evaluation process, additional emphasis on evaluating local plans, and expanding the evaluation to include their school-to-work transition program.

A framework for a revised evaluation system was designed. Systems and TQM concepts were used to develop the framework. Emphasis was placed on evaluating the district's plan for the future in place of evaluating what had been done. Districts were given more flexibility in selecting evaluation team members and data collection techniques.

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Conceptual Framework for Revising the Secondary Vocational Education Program Evaluation System

Purpose and Objectives

Introduction

In 1975, the Center for Vocational, Technical and Adult Education (CVTAE) received a call from several LVECs who were concerned about improving their secondary vocational education programs through the use of effective program evaluation techniques. The Center directors met with these LVECs, school administrators, and representatives from other vocational education programs, including the technical college system. Participants in the meeting identified the types of data that were needed to improve secondary vocational education programs. This group became the first advisory committee for the evaluation project.

This input was used by CVTAE staff members to develop the initial evaluation design for secondary vocational education programs. This design was checked against the evaluation requirements in the federal vocational education legislation. In addition, a draft copy was reviewed by the advisory committee members. Changes were made to meet federal requirements and to incorporate the suggestions from the advisory committee.

During the next fifteen years, this evaluation model and process were used to evaluate the secondary vocational education programs in Wisconsin that received federal funding. The model, procedures, and processes were continuously refined during the fifteen year period. At the end of each of the reauthorization cycles for the federal vocational education legislation, an advisory committee was convened to review the model and suggest improvements.

With the advent of the reauthorization of the Carl Perkins Vocational Education Act in 1991, the Wisconsin Department of Public Instruction no longer had funds to sustain the evaluation project that provided technical assistance, in-service workshops and data processing to secondary schools. As a result the evaluation project at UW-Stout was phased out.

After the phase out, the Center received requests from secondary vocational educators for assistance with program evaluation. They were aware that the standards and measures mandated in the federal vocational education legislation would have to be used. However, many of them concluded that they needed to have more than the standards and measures in order to improve

their programs. This project was designed to identify the evaluation processes and data needed by secondary vocational educators.

Purpose

The purpose of this study was to identify the program evaluation needs of vocational educators at the secondary school level in Wisconsin.

Objectives

This project was designed to attain the following objectives.

1. Identify the components in the Phase III Secondary Vocational Education Program Evaluation Model and Process that secondary vocational educators wanted to retain.

2. Identify the components of the Secondary Vocational Program Evaluation System that vocational educators wished to delete or give a low priority.

3. Develop a list of additional program facets related to school-to-work transition programs that needed to be evaluated.

4. Create a synthesis of the input from secondary vocational educators and develop a set of prescriptions and an outline for a new evaluation system.

Limitations

This study was limited to developing a set of prescriptions and an outline for the evaluation of high school vocational education and school-to-work transition programs. It was recognized that these programs do not exist in isolation from other high school programs. Thus, some data was collected on the areas that overlap with other programs in the school district. However, the project had limited resources and the original point of concern was the evaluation of vocational programs. Other agencies were involved in providing evaluation systems and services for academic programs and the Center did not want to meddle in their missions.

Previous Evaluation System

The system used to evaluate secondary vocational education programs during the period from 1976 to 1992 contained three phases: Self-Evaluation, External Evaluation, and Utilization. Activities in the three phases are described on the next page.

Phase I	Phase II	Phase III
Self-Evaluation. Adapting and using the procedures and questionnaires contained in the Vocational Evaluation Manual, schools conducted and reported a comprehensive self-evaluation of their total vocational program. These included vocational guidance and counseling, and Carl Perkins targeted populations. Five questionnaires were required; an additional eight were optional. Schools which completed an evaluation in the previous cycle addressed utilization of their findings toward program improvements as outlined in their Carl Perkins Plan.	**External Evaluation.** Adapting and using procedures and instruments contained in the Vocational Evaluation Manual, schools hosted an external evaluation and received a written report containing conclusions, recommendations, and solutions for program improvement. This report incorporated progress made toward implementing recommendations from the previous cycle, and solutions for program improvement.	**Utilization of Evaluation Findings.** In this phase, schools analyzed and interpreted findings from the Self-Evaluation and Team Visitation Reports, set priorities, implemented changes, and monitored impact which occurs as a result of the evaluation. Participation of staff was acknowledged. Plans for the next evaluation cycle were also begun. The priorities set in the Utilization Phase were used in developing and/or updating the Carl Perkins Plans and program/ departmental plans.

The total vocational program was evaluated including special needs, guidance and counseling and the management components. Wisconsin DPI recognized six vocational program areas: agriculture education, business education, health occupations, family and consumer education, marketing education and technology education. Staff members were not evaluated. Statements in the Team Report were phrased to address program concerns.

Information from the evaluation was useful for decision-making at three levels. Figure 1 identifies the outcomes for local, state and federal levels. The Center for Vocational, Technical, and Adult Education (CVTAE) at UW-Stout processed the evaluation data for each school and printed LEA summaries. At the end of each year, the Center combined the LEA data sets and developed a composite report. The composite summaries presented the information needed for the statewide planning and the Carl Perkins Vocational Education Act.

FIGURE 1
Three Major Prioritized Outcomes

1 LOCAL LEVEL	**To promote and assist in the evaluation of LEA* vocational programs for the purpose of program improvement at the local level.**
2 STATE LEVEL	**To provide valid representative data on LEA* vocational programs for regional and statewide planners of vocational education and to satisfy state requirements of program evaluation.**
3 NATIONAL LEVEL	**To help ensure accountability of federal funds allotted to LEA* vocational programs and to satisfy federal requirements of program evaluation.**

LEA* Local Education Agency (K-12, or as appropriate)

Need for a New System

The last reauthorization of the Carl Perkins Act changed the funding formula for the LEA and State level activities. More funds were sent to the LEAs and there were fewer dollars at the State level. As a result, the evaluation project was not continued after 1992.

A number of secondary vocational educators indicated a need for a new evaluation system and a desire to have input in the design process. Their requests were based on a perceived need to use evaluation data to improve their programs. CVTAE wanted to utilize the knowledge they had developed through their experiences with the original evaluation system to develop a revised model.

Research Procedures

Introduction

As noted previously, the purpose of this project was to gain input from vocational educators and administrators concerning the types of evaluation data they need in order to improve vocational

education programs at the secondary level. This project focused on collecting input from educators, analyzing it, and developing the framework for the evaluation system.

Study Design

CVTAE staff members conducted a series of four input sessions throughout the State of Wisconsin to obtain information from LVECs, vocational educators and high school administrators. Each meeting had the same format. The first portion of the session used the brainstorming technique to generate a list of ideas. These ideas were prioritized in the last part of the session.

After the four sessions had been completed, Center staff members reviewed all of the lists and the priorities established by the focus groups. This information was synthesized and used to develop a survey. This survey was mailed to everyone who signed up for an input session. The results from this survey were used to establish the final priorities.

The results from the four sessions and the prescriptions were discussed with an advisory committee comprised of secondary vocational educators. Their input was used to refine the prescriptions and to develop an outline of the evaluation design.

Input Session Results

The four input sessions for LVECs and vocational educators were scheduled in November and December. The sessions were held in Menomonie, Madison, Appleton, and Wausau. The Center for Vocational, Technical and Adult Education sent a letter to all LVECs in Wisconsin announcing the four sessions and inviting them to attend the session of their choice. They were also encouraged to bring other vocational educators. A total of 34 educators participated in these sessions.

The structure of the input sessions was developed with the assistance of the WASVA Board. During the first portion of the session, the participants responded to three questions:

- What do you want to keep from the previous evaluation system?
- What do you want to change?
- What additional evaluation needs do you have?

A brainstorming format was used to obtain this input.

After the recommendations had been listed for each question, the lists were edited and recommendations were combined when there was significant overlap. The next step was to prioritize the recommendations for each question. Participants were asked to identify their top five priorities. The most important recommendation was given five points, the next most important four points, and the fifth priority received one point. A copy of the results from each session is reproduced in Appendix A.

Table 1 presents a summary of the recommendations and priorities given at the four input sessions. The recommendations are divided into two sections: (1) components that should be retained from the previous evaluation system, and (2) components that should be changed or added. The information given to the right of the recommendations indicates the input session, priority, and where the recommendation can be found in the individual summaries.

Recommendations in the first part of Table 1 were concerned with components that should be retained and come from the responses to the first question discussed at the input sessions, "What components of the evaluation system should we keep?" The numbers in the columns to the right indicate the priorities given by the participants. Stars indicate that the recommendation was made but the group did not prioritize the total set of recommendations. A dash (-) denotes that the group did not make the recommendation.

Recommendations in part 2 came from the responses to the last two questions discussed at the input sessions, "What should we keep?" and "What additional evaluation needs do you have?"

Some of the major themes in the input were:

- Retain the evaluation process, especially the self-evaluation and on-site review process.
- Provide more flexibility for local school districts to tailor the evaluation design to their needs.
- Place more emphasis on evaluating local plans and goals to determine if the program is moving in the right direction.
- Include a greater variety of data collection techniques.
- Allow more flexibility in selecting the on-site evaluation team, both in terms of a wider variety of constituencies and the use of consultants.
- Expand the evaluation system to include Tech Prep, Education for Employment, and School-to-Work Transition Programs.

TABLE 1

Summary of Suggestions and Priorities From the Input Sessions

Recommendations	SESSION MEN	MAD	APP	WAU
• RETAIN:				
a. Self-evaluation.	2	*	3	*
b. On-site evaluation.	3	*	2&4	*
c. Graduate follow-up.	5	*	-	*
d. Structured system for the evaluation process.	1	*	-	-
e. Include special needs and guidance programs in the evaluation.	4	-	-	-
f. Training for team leaders and team members.	1(Sub)	-	4	-
g. Key questions.	1(Sub)	*	-	-
h. Data processing services.	-	*	5	-
i. Stout coordinator.	-	*	-	-
j. Advisory committee to provide input on the evaluation system.	-	-	1	-
• CHANGES TO MAKE:				
k. Provide more flexibility in the evaluation system.	III-4	III-4	II-4 II-5	-
l. Orient the evaluation to program goals and where program should be headed.	III-4	III-5	-	-
m. Broaden the composition of the evaluation team.	III-2	II-4	II-2	-
n. Allow flexibility in selecting team members. (Peers vs. consultants, etc.)	II-6	-	II-2	II-D
o. Evaluate Tech Prep, Education for Employment and School-to-Work Transition Programs.	III-1	II-7 III-1	III-1	III-A
p. Assess integration of subject matter areas.	III-1	II-6 III-1	III-1 III-3	-
q. Make the evaluation process more efficient. (Includes coordination with SEC, VEERS, Measures & Standards.)	II-4	II-1 II-2 III-5	II-1 III-2 III-7	II-E
r. Expand the data collection techniques that can be used. (Focus groups, student performance assessment, authentic assessment, etc.)	III-5	II-1 II-10	II-7 II-8	II-A
s. Improve data collection forms and processes.	II-4 II-5	II-1	-	II-C II-E
t. Incorporate new educational developments. (Outcome-based education, business-education linkages.)	III-5 III-1	II-8	-	III-C

Results from the input sessions were used to develop a survey instrument. This was mailed to everyone who signed up for an input session.

The survey results from forty-seven vocational educators are given in Table 2. Elements from the first evaluation system that should be retained are given in the first section. The self-evaluation and the on-site evaluation were identified as very important. Also, the participants thought that graduate follow-up, training for team members, data processing services and the inclusion of special needs and guidance programs were important to very important and should be retained.

Recommended changes in the evaluation system are given in section two. Evaluating the total school-to-work transition program, integration of subject matter areas, and efficiency received "very important" ratings. More flexibility in the evaluation process and selection of the evaluation team received "important" ratings.

TABLE 2

Vocational Education Program Evaluation System Survey Results

SUGGESTIONS	Results Median	IQR	% I&VI
• **RETAIN:**			
1. Self-evaluation	4.7#	1.0	96@
2. On-site evaluation	4.5	1.2	85
3. Graduate follow-up	4.4	1.3	79
4. Structured system for the evaluation process	4.2	1.4	72
5. Include special needs and guidance programs in the evaluation	4.4	1.4	77
6. Training for team leaders and team members	4.4	1.3	79
7. Key questions	4.1	1.6	68
8. Data processing services	4.4	1.5	73
9. Stout coordinator	4.1	1.6	68
10. Advisory committee to provide input on the evaluation system	4.2	1.6	66
• **CHANGES TO MAKE:**			
11. Provide more flexibility in the evaluation system	4.2	1.3	74

SUGGESTIONS	Results		
	Median	IQR	% I&VI
12. Orient the evaluation to program goals and where the program should be headed	4.4	1.1	87
13. Broaden the composition of the evaluation team	3.4	1.9	47
14. Allow flexibility in selecting team members (Peers, consultants, etc.)	3.9	1.5	64
15. Evaluate Tech Prep, Education for Employment and School-to-Work Transition Programs	4.8	1.0	87
16. Assess integration of subject matter areas	4.7	1.1	88
17. Make the evaluation process more efficient. (Includes coordination with SEC, VEERS, Measures & Standards)	4.7	1.2	83
18. Expand the data collection techniques that can be used. (Focus groups, student performance assessment, authentic assessment, etc.)	4.2	1.3	76
19. Improve data collection forms and processes	4.5	1.3	79
20. Incorporate new educational developments. (Outcome-based education, business-education linkages, etc.)	4.5	1.5	74

N=47

KEY: Median and IQR{Interquartile Range} are based on the following response scale:

1=NI=Not Important
2=SI=Slightly Important
3=MI=Moderately Important
4=I=Important
5=VI=Very Important

@ Percent I&VI=Sum of the percentage of respondents that selected the Important and Very Important responses.

Evaluation Framework

Introduction

The purpose of the evaluation framework is to identify the major concepts or components in the evaluation system and identify how these elements interact. The framework will provide direction for the detailed design and developmental work that will follow. Specific design and development work were not a part of this project. Thus, this section presents a broad outline of the evaluation system.

The following sections will identify the concepts that provide the overall structure for the evaluation system and specific elements within the evaluation system.

Evaluation Framework

Two major concepts were used to guide the design of the evaluation system. These were the systems approach and total quality management.

Application of the systems approach provides a very useful perspective for the design of the evaluation system. The systems perspective encourages a comprehensive view of the factors involved in a program and how they interact with each other. A system is comprised of two or more elements that interact to accomplish a specific purpose or set of purposes. The output from a system must match these purposes. Inputs are processed to attain desired outputs. In addition, every system operates within an environment that has an impact on the inputs, processes and outputs. The systems approach is depicted in Figure 2.

A vocational program can be viewed as a system. It has a defined set of purposes which include preparation of students for entry into a job or advanced educational programs. The inputs into the system would include students with certain abilities and interests. Various instructional processes and learning experiences are used to change these input characteristics to competencies and skills that are needed on the job. The environment for this system would include the school climate, students' peers, and quality of the area economy.

Systems design is carried out to create the best combination of inputs, processes, and outputs within a given environment. These components are selected and/or modified to create a system that will achieve its purposes in the most effective and efficient manner. Another design

principle involves the interrelationship of systems. What happens in one system often times has a significant effect on another system. For example, if the academic requirements needed for graduation are significantly changed, this also has an impact on vocational programs. Figure 3 depicts a common relationship between academic and vocational education systems. There is a separation between the two and the lack of a two-way interaction between the vocational and academic programs.

Experience has indicated that the relationship between academic and vocational programs illustrated in Figure 3 is not an effective design. Vocational education is not a mainstream component of the educational program in this system. Many students who could benefit from various aspects of vocational education are discouraged or blocked from access to them. Students who are taking vocational education often do not have access to appropriate academic competencies.

A more desirable system is described in Figure 4. Learning experiences that develop academic, career decision-making, vocational, and community participation competencies are integrated in one system. They are interrelated and designed to prepare people for the various roles they will encounter as adults. This system includes a feedback loop from graduates. This feedback provides information on the adequacy and relevancy of the competencies developed in the educational program. When used on a systematic basis, this system will be self-correcting and continuously improving.

The second set of concepts used to develop the evaluation framework comes from total quality management (TQM). Quality is commonly defined as "meeting customer expectations." Some organizations are changing this to "exceeding customer expectations." Some educational organizations are defining quality as "meeting client expectations." In either case quality is dependent upon identifying the relevant customers and their expectations.

Total quality management (TQM) is based on the principle that quality is everyone's responsibility. In a school setting this would include administrators, teachers, counselors, support staff, parents, and students. The elements of TQM are presented in Figure 5. Each person in a system must understand how he or she contributes to the quality of the output from that system. Processes must be designed to meet customer expectations. Processes are those activities that modify and change inputs to produce a desired product or service. In education these processes focus on the learning activities and experiences of students. They also involve

FIGURE 2: SYSTEMS APPROACH

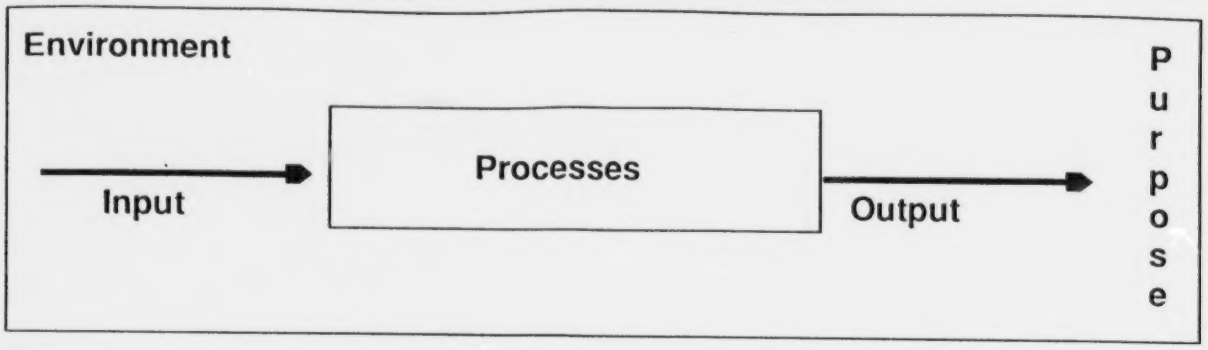
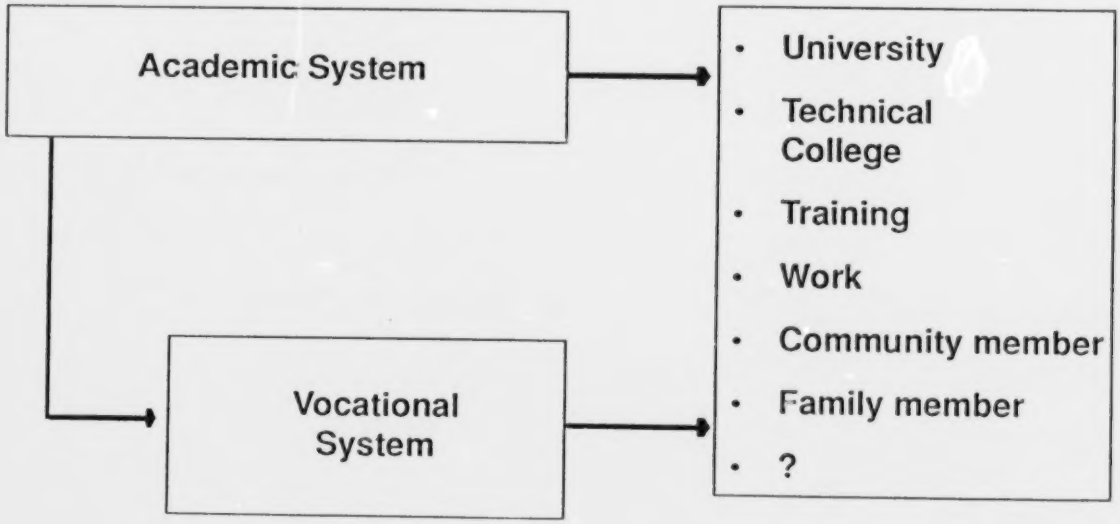


FIGURE 3: Academic and Vocational Systems



the activities of teachers, administrators, counselors and support staff that generate these educational experiences.

TQM includes a continuous improvement system. Various strategies are available for this. One approach commonly used is PDCA. This acronym represents plan, do, check and act. The planning stage involves using available information to plan or develop an improvement in the system. This plan is tried out in the doing stage. In the next stage, check, data is collected and the impacts of the change are evaluated. Based on this evaluation a decision is made on putting the new program or approach in place and using it on a regular basis (Act). The basic concept involved in continuous improvement is to use the PDCA cycle as a part of ongoing operations to refine the system. The thrust is for incremental change over a period of time.

Teamwork is an interval part of TQM. TQM encourages the interchange of ideas and joint action. It recognizes that systems are more productive when people work together.

TQM also recognizes that people create change. It encourages staff development activities and the professional growth of individuals who work in the system.

Based on the application of TQM and the systems approach, plus the suggestions from the four input sessions, the emphasis in the evaluation design was changed from one of looking primarily at past accomplishments and current status to significantly more emphasis on the future. This change is graphically depicted in Figure 6. As a result of this change, the framework places more emphases on the preparation of mission and vision statements, development of a strategic plan, and preparation of an operational plan for the vocational program as a part of the evaluation process. Data on the current status of the vocational program will be collected and used. One of the major emphasis in the evaluation process will be to develop and validate strategic and operational plans that will make the vocational program efficient, effective and productive.

The framework is described in more detail in the paragraphs that follow. Suggestions from the input sessions and the advisory committee were used to develop the framework.

The three major components in the vocational program evaluation process are:

- Self-assessment and planning.
- External validation.
- Action plan implementation.

FIGURE 4: Desired System

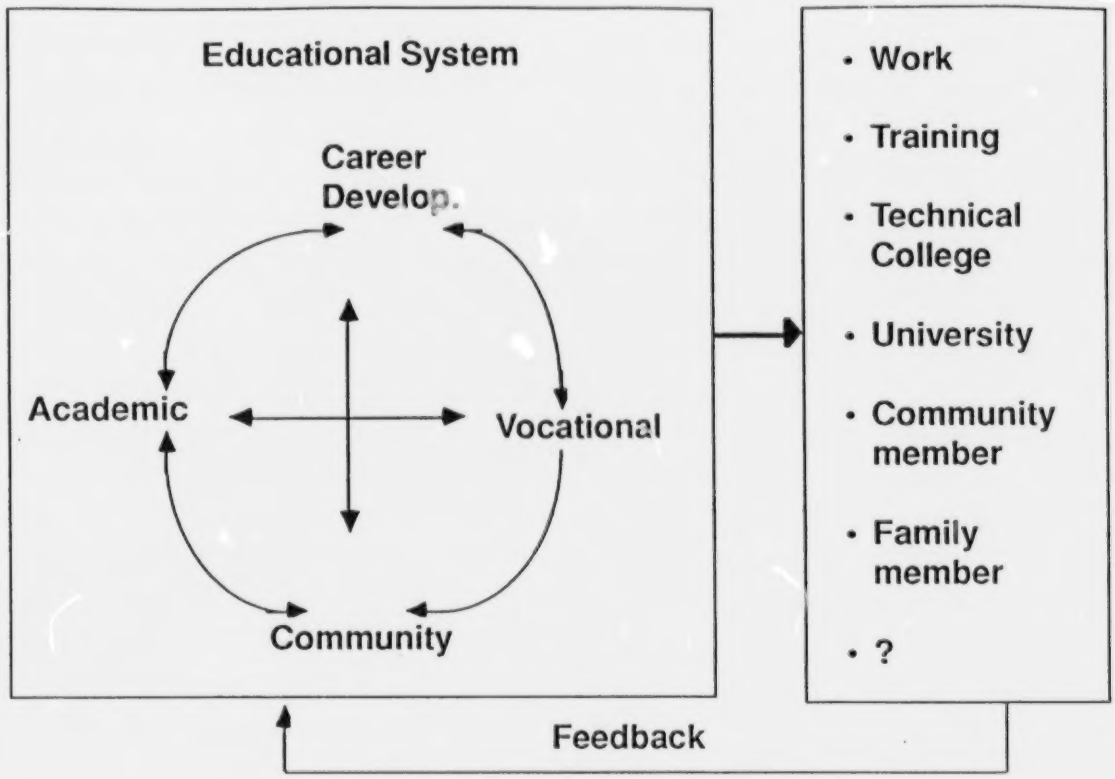


FIGURE 5: TQM
Total Quality Management = TQM

Elements of TQM

- Quality involves everyone
- Processes designed to meet customer expectations
- Continuous Improvement System
- Team empowerment and involvement
- People create change

The purpose of the self-assessment and planning phase is to determine the status of the program, identify needs, and evolve a plan. The status of the program will be determined by input from various stakeholders in the program, a review of data collected on various processes and outputs of the program, and information from the measures and standards established by DPI. With the exception of the measures and standards which are mandated by the Carl Perkins Act, the other indicators would be selected by people associated with the program. This selection process will be guided by the vision and mission statements developed for the program. (See Figure 7) As a part of this process, the stakeholders need to determine the boundaries of the program to be evaluated. Are the boundaries based on the senior high school vocational courses, middle and high school courses, or the total school-to-work transition program?

Needs are identified by contrasting current performance levels with the desired or required performance levels. The larger the discrepancy the larger the need. These discrepancies will be reviewed by the local district staff, advisory committee members and other stakeholders to determine their overall significance and priority.

The mission and vision statements and the needs identified form the basis for developing a strategic plan for the district's vocational education program. Also, the mission statement will define the scope of the program to be evaluated. The linkage between these elements in the planning system need to be apparent and logical. The strategic plan will set the overall direction for a three- to five-year time period. It will contain goals and strategies for attaining these goals.

The district's operational plan will evolve from its strategic plan. The operational plan will include one year objectives. In some instances the district may want to plan for two years. In addition to the objectives there will be activities identified to meet these objectives, responsibilities assigned, and evaluation criteria listed. A resource budget needs to be identified for the operational plan. This would indicate how human resources, facilities, equipment and operational funds will be used to accomplish the plan.

The self-assessment and planning processes will be managed and conducted by the local school district. Working within the TQM framework, it is important that these processes be conducted and completed by a team comprised of program stakeholders. Districts should consider going beyond their staff members in selecting team members. Representatives from local business and industry, parents, students, and graduates should be considered for participation on the team. The team will need to identify its role and responsibilities and how it interfaces with the administrative structure of the local district. All of the staff members involved in the vocational

FIGURE 6: Change in Emphasis

Original Evaluation Process

New Design

FIGURE 7: Self-Assessment and Planning

- → Vision Statement
- → Mission Statement
- → Status of Current Program
- → Needs Assessment Results
  - ▲ Performance targets for critical processes
  - ▲ Prioritized list of needs (Performance target ◄—► Status)
- → Local Plan (3 to 5 years)
  - ▲ Strategic Plan and Goals (3-5 years)
    - Goals
    - Strategies
  - ▲ Operational Plan
    - One year objectives (May want two years in some areas)
    - Activities to meet objectives
    - Assign responsibility
    - Evaluation Criteria
    - Resource Budget

education program must be involved in this team. If the team becomes too large, it can be divided into several work teams.

The local district will identify its customers, the types of data collection methods to be used, and the areas to be evaluated. The exceptions to this would be the areas that are mandated by the Carl Perkins Act and/or Wisconsin Department of Public Instruction. In addition, other federal regulations may be involved.

The committee and program staff members will develop the vision and mission statements, strategic plan and the operational plan. A school may want to involve a consultant or consultants in this phase. Care should be exercised in selecting a consultant to assure that this individual will be able to provide expertise in the areas needed.

The external validation phase of the evaluation replaces the on-site evaluation phase from the former evaluation model. The title for this phase has been changed to reflect the change in emphasis in this portion of the evaluation system. In the previous model, a team of evaluators reviewed the self-evaluation report, collected data during the on-site visit, and determined whether the program had achieved certain goals and expectations. In the new evaluation model, the primary focus of this phase is to review the district's strategic and operational plans for its vocational program. An outline of the activities involved in the external validation is included in Figure 8.

Local school districts will have considerable flexibility in selecting the members of the external validation team. A team leader will be needed. This person should have experience in the on-site validation process and in team leading. The number of additional team members will depend upon the scope of the program and the types of input needed. The validation team could be selected from educators, consultants, business/industry representatives, school board members, graduates, and/or other groups. For example, a school district may wish to focus a part of the validation visit on the school-to-work transition portion of its program. To do this, consideration would be given to having counselors, vocational teachers, and a personnel or human resource specialist from B/I on the team. If there is an apparent need to make significant changes in one of the vocational curriculum areas, it may be desirable to have one or more consultants from that area participate on the external validation team.

The third phase of the evaluation system is action plan implementation. The actions in this phase were based on the results of the first two phases. At the end of the external validation team visit,

the local district will have a validated action plan. This action plan will include the strategic plan, operational plan, and action plans for the team or teams involved in the implementation process. In addition to action plans for the teams there also need to be individual action plans for staff members. Each staff member needs to develop his/her own plan. The team plans and individual plans need to be aligned with the overall operational plan and strategic plan for the program. (See Figure 9)

When these three phases are used in a systematic manner, the vocational program will experience continuous improvement. This is depicted in Figure 10. Self-assessment and planning are based on information available to the local staff members and other stakeholders in the program. This plan is validated by an external team. This step provides a check on the processes and procedures used by the internal team. It also is an opportunity to acquire new insights and information from the validation team.

The next step is to put the validated plan into operation. When the plan is implemented, its impacts and outcomes must be evaluated to provide information for the next cycle of the evaluation process. One of the principles of systems design is to maximize the effectiveness of the system rather than emphasizing a component. This principle must be kept in mind as the plan is developed and implemented.

FIGURE 8: External Validation

- → Evaluator orientation
- → Self-assessment and Planning team present
  - ▲ Vision
  - ▲ Mission
  - ▲ Needs
    - Current status
    - Performance targets
    - Priorities
  - ▲ Strategic Plan
  - ▲ Operation Plan
  - ▲ Action Plan
  - ▲ Evaluation Criteria
- → Evaluator Meeting
- → Interview and Document (audit the plan)
- → Consensus Discussion
- → Write Reports
- → Discuss report and recommendations with vocational staff members
- → Brief Administrators

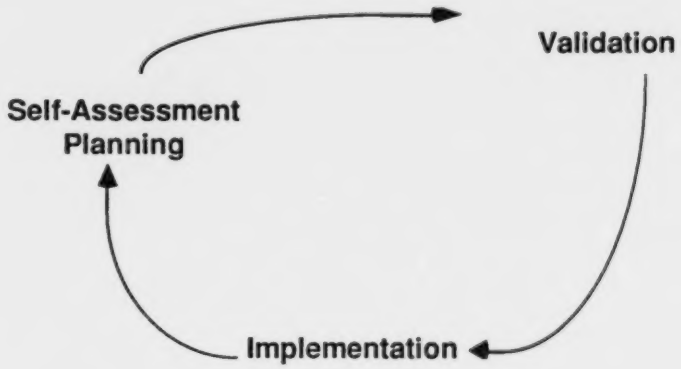
FIGURE 9: Action Plan Implementation

→ Strategic Plan

→ Operational Plan

→ Action Plans for Teams and Individual Staff Members (Alignment)

FIGURE 10: Continuous Improvement Cycle



Recommendations for the Evaluation System

The results from the four input sessions and the survey were reviewed with the project's advisory committee on Friday, April 23, 1993. The researcher also presented the TQM, systems, and evaluation concepts presented in the figures reproduced in this paper. The committee members agreed with the following recommendations for the evaluation system. A list of committee members is given in Appendix B.

1. Develop an evaluation system that goes beyond the data required in the Standards and Measures.
2. Coordinate the evaluation system with the Standards and Measures and other data required by State and federal programs.
3. Design the evaluation system to help improve local programs.
4. Design the system to evaluate the School-to-Work Transition Program.
5. Use a systems approach to evaluation.
6. Apply TQM concepts in designing the system.
   - Meet customer expectations.
   - Process improvement.
   - Team and individual empowerment.
   - Continuous improvement system.
7. Change the evaluation system to focus on the future.
8. Continue to use the three phases in the original evaluation system, but modify them to be future oriented and more efficient.

   - Self-assessment and planning.
   - External validation.
   - Implementation of the Action Plan.

Appendix A

Input Session Results

- Menomonie A-1
- Madison A-2
- Appleton A-5
- Wausau A-7

Participants in Input Sessions A-9

Sample Survey Form A-12

Input From the Session at Menomonie
November 9, 1992

The first input session for the revision of the Secondary Vocational Education Program Evaluation System was held on the campus of UW-Stout on November 9, 1992. This session was attended by eight people.

The results of the discussion and prioritization processes are given below:

I. Components of the Current Evaluation System that should be retained are listed in priority order below. The number in parentheses after the statements indicate the number of votes received in the prioritization process. The larger the point total, the higher the priority placed on the recommendation.

1. A structured system for the evaluation process should be retained. (33)
   - Exit interview.
   - Exit report.
   - Evaluate against standards-"What Should Be."
   - Key questions.
   - Training for team leaders and team members.
   - Draft report available at the end of the on-site.
   - Opportunity for the local LVEC to address the on-site team.

2. Continue the self-evaluation portion of the process. (29)

3. Retain the external evaluation team and the on-site visit. (28)

4. Include the involvement of guidance and counseling and special needs programs. (16)

5. Continue the graduate follow-up process. (10)

Other recommendations and votes received were:
- Continue the strong relationship with the university. (2)
- Continue the interchange of ideas on vocational education through the opportunity to serve on on-site teams. (2)

II. Changes that should be made in the evaluation process.

1. Make more provision for the school district to discuss/explain priorities and long-range plans in the self-evaluation report and to the on-site team. (22)

2. Expand the preparation for the on-site team and the communication with team members prior to the time they come on-site. (20)

3. Provide a better definition of "Needs Assessment." (18)

4. Improve the survey forms and data collection processes. (16)
   - Simplify the forms - less questions, narrow the focus.
   - Consider omitting student names on the surveys.
   - Use optical scanning and other data management techniques to improve turnaround time.

5. Expand the business/industry follow-up survey process to include input on what competencies they want high school graduates to have. (14)

6. Change the process for selecting team members. Obtain more commitment and district support for providing team members. (12)

7. Develop a system for identifying the "Vocational Education Student." (11)

Other suggestions that did not receive as much priority were:
- Schools need to develop better processes for utilizing the expertise of evaluation team members.
- Cluster LVECs need options that fit their multiple school situation.
- Change the exhibit/display area of documents. Much of the information provided during the on-site evaluation was not used.

III. New components that need to be added to the evaluation system.

1. Expand the evaluation to include Tech Prep, Education for Employment and integration of other subject matter areas with vocational education. (37)

2. Change the structure of the on-site evaluation team. (26)
   - Add academic teachers.
   - Include people from business and industry.
   - Include community members.
   - Include technical college staff.
   - Include university faculty members.

3. Include an outcome-based assessment component. (13)

4. Provide more flexibility in the evaluation process. (11)
   - Address local goals.
   - Link to local plan.

5. Add student performance assessment processes. (9)

Other suggestions and votes received were:
- Make provision in the evaluation process to address pilot and/or exemplary projects/programs at the district level. (6)
- Develop techniques to make more effective use of previous evaluation data and recommendations. (6)
- Make the evaluation a continuous process. (5)
- Provide the capacity to address local, state and/or national issues. (5)
- Place more emphasis on staff development. (2)
- Provide data on critical resources and practices such as release time for curriculum development, supervision of cooperative education students, etc.

Input From the Session at Madison
November 23, 1992

The group responded to the three basic questions established for the input sessions.

I. The following are the components from the secondary vocational education evaluation system that the participants wanted to keep. NOTE: The participants also suggested some changes within these components. These will be noted in Section II. These recommendations are not listed in priority order.

A. Questions on the curriculum areas were useful. They encouraged the evaluators to look at various aspects of the curriculum.

B. The Stout coordinator was important to the process.

C. It was important to have data processing available.

D. The overall format for the evaluation should be retained. This includes the self-evaluation, on-site team process and utilization activities.

E. The follow-up of graduates and employers should be retained.

F. Include student surveys in the new evaluation process.

G. If possible, keep the data elements parallel to the data elements in the old evaluation in order to provide comparable data. In the discussion it was noted that this is not a top priority, but is something that should be done if it is possible to accomplish without putting significant constraints on the new evaluation design.

II. Components and elements in the old evaluation process that should be changed and/or dropped. These are presented in priority order. The number at the end of the statement indicates the total number of points received in the prioritization process. There was a maximum of 50 points that could be given any one item.

1. Improve the follow-up survey process and forms. (34 Points)

- Shorten the forms to make them more efficient and improve response rates.
- Acquire more information on the future-what vocational programs should emphasize to prepare students for future requirements.
- Include a variety of ways to complete the surveys-such as telephone interviews, focus groups, sampling, mail surveys, etc.
- The one-year survey should not be conducted until at least a year has passed. It may be better to use a three-year survey to give a longer timeframe for the graduates to provide input on.
- Combine an exit survey of students along with the one- or three-year survey to provide more appropriate data. Input should be obtained on all high school graduates not only the vocational program graduates. In addition, ask them about their future competency needs as they perceive them.
- The employer survey should include a random sample of employers and community members.
- Assess graduates' and employers' perceptions of the transition from school to work.

2. Make the evaluation process more efficient. (23 Points)

   - Reduce the time period required to put the evaluation together.
   - Reduce the total amount of time required to do the evaluation.
   - Make the evaluation more cost-effective.
   - Design the evaluation so that it makes use of and also provides data for the standards and measures required under the Carl Perkins Act, and the data needed for other evaluation activities such as SEC and the DPI audits.

3. Make provisions for outcome-based education in the evaluation system. (20 Points)

4. Modify the evaluation team composition. (17 Points)

   - Add people from business and industry, technical colleges, and the university system.
   - Have a team comprised of two coordinators direct the on-site evaluation process. The team of coordinators could be comprised of university and technical college faculty members.

5. Change the team visit to make it more flexible, less intense, and provide more options for team member activities. (17 Points)

6. Involve academic departments and curriculums in the evaluation process. (14 Points) There is a need to identify the degree to which academics are applied to vocational areas and reinforced in vocational courses.

7. Develop the evaluation system so that the tech prep program can be evaluated as a part of the process. (11 Points)

8. Link or relate the evaluation process to the benchmarking system which is being developed in the state. In other words, incorporate the best practices identified. (6 Points)

9. Review the questions and guides for the on-site evaluators. These were helpful but they need to be reviewed and changed to meet current standards and program concepts. If possible, shorten the list of questions. (5 Points)

10. Include the concept of authentic assessment.

III. Additional Evaluation Needs Identified by the Participants.

1. Develop an evaluation model that can be used to evaluate the districts' Education for Employment Program. (50 Points)

   - Business/education partnerships.
   - Applied academics/cross teaching.
   - Competency-based education.
   - Assessment.
   - Developmental guidance program (Careers Development Program)
   - Advanced placement program and processes.
   - Linkages-process and product.
   - School-to-work transition processes.
   - Equity program.
   - Work study/co-op program--work site learning.

- Apprenticeship program (Youth apprenticeship).
- Education for Employment council/Vocational advisory committees.
- Special needs program.
- Staff in-service program.
- Exploration programs.
- At-risk and special needs programs (Standard M). Equity and special needs apply to the total school program and should be in the total school evaluation model.

2. Develop targets for quality programs. Use these for each area in the evaluation. (38 Points)

3. Link the evaluation to school's vision statement and strategic plan. Also, tie this in with the school report card. (22 Points)

4. Design a flexible evaluation system so that schools can select modules that fit their needs and program status. (21 Points)

5. Network the evaluation system to the Carl Perkins Act standards and measures so that the data do not have to be collected a second time.

Input from the Session at Fox Valley Technical College-Appleton
November 30, 1992

I. The following components of the original vocational education evaluation system were recommended for retention in the new system. There may be some changes in specific areas within each component. These changes are noted in sections two and three. The recommendations are given in priority order. The point total in parentheses after each item is the total number of points received in the prioritization process. The more points the higher the priority.

1. Continue to use an advisory committee to provide input to CVTAE on the evaluation system. This committee should have membership from LVECs, Business and Industry, Bureau of Vocational Education (DPI), Technical College System, and the University System. (34 Points)

2. Continue the process for identifying members for the evaluation teams. Maintain a pool of educators and consultants who can serve on evaluation teams. Have the LVEC make the evaluation team contacts. (30 Points)

3. Continue to use the self-evaluation. (24 Points)

4. Provide training sessions for evaluators. This would include those planning the evaluation and evaluation team leaders. (22 Points)

5. Continue to provide statistical analysis and graphs services. (10 Points)

II. Changes that need to be made in the vocational education evaluation system.

1. Develop a more functional self-evaluation report. The report needs to be smaller, contain less education jargon, etc. (24 Points)

2. Allow local school district flexibility in selecting the composition of the evaluation team. A local district should be able to determine if it wants to have consultants or peer evaluators. (21 Points)

3. Users of the evaluation process and system should have a major input into its direction. (21 Points)

4. Develop a flexible evaluation cycle. Local districts should be able to select a time period in which they evaluate their vocational programs based on when evaluations are needed. There should be a maximum number of years in the cycle, such as seven to ten years. Make this cycle consistent with other evaluation cycles such as the SEC. (11 Points)

5. Provide flexibility to adjust to curriculum changes. (9 Points)

6. Have the evaluation team review and evaluate the implementation plan as well as the current status of the program. (7 Points)

7 Allow the use of focus groups, interviews and, other techniques to gather data. (6 Points)

8. Provide a list of alternative techniques and ways to collect data in each of the areas evaluated. (6 Points)

III. Other evaluation needs identified.

1. Evaluate the school-to-work transition program. The following components are included in this program, but the list is necessarily exhaustive. (36 Points)
   - Education for Employment.
   - Each of the educational pathways.
     -College Prep
     -Tech Prep
     -Work Prep
   - Applied academics.
   - Gateway assessment (WSAS)
   - Secondary options.
   - Youth apprenticeship.
   - Business/industry-educational partnerships.
   - Technical college credit (dual credit)
   - JTPA

2. Work with the School Evaluation Consortium. (SEC) (29 Points)
   - Examine linkages between disciplines.
   - Assessing the school-to-work transition program components.

3. Assess linkages between curriculum areas. (22 Points)
   - Check restructuring activities and goals.
   - Applied academics
   - Work/coordinate evaluation with SEC

4. Provide Carl Perkins Act funds for evaluation projects that would assist local districts with their evaluation planning and activities. (17 Points)

5. Relate the evaluation process to changes in education, public concerns, politics, etc. (16 Points)

6. Select a director of the evaluation process who is knowledgeable of vocational education and the school-to-work transition program. (13 Points)

7. Do not duplicate the data collection required for VEER's. (2 Points)

Input from the Session at Northcentral Technical College-Wausau
December 1, 1992

Because of the weather and slippery roads, only one of four people scheduled to attend the session was able to attend. Dave Carney from Wisconsin Rapids provided the following input. Since there was only one person at the session, no prioritization was made of the items.

I. What do you want to keep from the secondary vocational education program evaluation process?

A. Review of the current vocational program.

B. Self-study.

C. Follow-up study of graduates.

D. On-site evaluation: The external evaluators, process and report.

II. What should be dropped or changed in the secondary vocational education program evaluation process?

The following changes in the secondary vocational education evaluation process were suggested.

A. More authentic assessment.

- What is being done-compared to the labor market needs in the community?
- Focus groups.
- More involvement of community, parents, business/industry, etc.

B. Changes in the self-study.

- More labor market information.
  - Job service office information.
- More research on what is appropriate for the program.
  - New jobs.
  - New technology.
  - New teaching techniques.

C. Follow-up study.

- Drop the one-year follow-up.
- Use five- and ten-year follow-up studies.
- Broaden the scope-include all graduates of the high school. This would require that the follow-up forms be changed.

D. On-site evaluation changes.

- Use a longer cycle-seven years.
- Change team size-use smaller teams if possible. Schedule less interviews for each of the team members.
- Have training sessions for new evaluators.
- Continue the training for team leaders and the LVECs planning the local evaluations.

- On-site evaluation reports should be reviewed by each of the evaluators (writers) after they return to their home base. (This provides reflection time.)

E. Eliminate unnecessary data. Reduce the overall volume and eliminate the information not used.

F. Implementation-The evaluation team should identify seven to ten major problem areas for the local district to focus on.

G. Share the results of the evaluations with teacher educators in various vocational areas.

H. Share the results with local technical college staff.

III. What other evaluation needs do you and your school have in relation to vocational education and school-to-work transition programs?

A. Incorporate the tech prep initiative in the process. Also evaluate the school to work transition program.

B. Identify job opportunities in the community.

- With a high school diploma.
- For those who complete apprenticeships.
- With a technical college degree.
- With a college degree.

C. Assess foundation skills. (SCANS)

- Where are they taught?
- At what levels are students achieving in each of these competency areas?

Participants in the Input Sessions

Participants-Menomonie Input Session-November 9, 1992

Wendy Ottestad-Osseo School District
Cheryl Gullicksrud-Osseo School District
Becky Johnson-Elk Mound School District
Andy Eaton-Hayward School District
Sherri Torkelson-Eau Claire School District
Herb Mehne-Menomonie School District
Jay Wagner-Chippewa Falls School District
Gerald Munyon-Chippewa Falls School District

Participants-Madison Input Session-November 23, 1992

Donna Ochsner-CESA #3
Nancy Breunig-Sauk Prairie School District
Ken Sedbrook-Monroe School District
Walt Gabrysiak-Kettle Moraine School District
Bill Herron-Kettle Moraine School District
Cyndy Sandberg-Watertown School District
Dick Dignan-WCOVE
Judy Gilbert-Muskego School District
Albert Pitts-Racine School District
Jim Olstad-Oregon School District
Chris Krueger-Franklin School District
Scott Pierce-Franklin School District
Gene Szymaszek-New Berlin School District
Russ Plagemann-Madison School District

Participants-Fox Valley-Appleton Input Session-November 30, 1992

Gari Spagnoletti-Appleton School District
Cindy Ebert-Ripon School District
Gloria Smith-Manitowoc School District
Gail Frame-Howard-Suamico School District
Rick Northrop-Bayport School District and Howard-Suamico School District
Jim Krueger-Ashwaubenon School District
Chuck Enders-Laona School District
Ted Schmer-Oshkosh School District

Bill Ratzburg-Kenosha School District
Robert Enghagen-Bureau of Vocational Education, DPI
Dan Tentcher-Winneconne School District

Participant-Northcentral-Wausau Input Session-December 1, 1992

Dave Carney-Wisconsin Rapids School District

Appendix B

Project Advisory Committee Members

Advisory Committee Meeting
Secondary Vocational Education Program Evaluation Project

Meeting Date: Friday, April 23, 1993
Time: 9:00 a.m.-3:00 p.m.
Place: Board Room, Howard Johnson East Town-Madison
I 90-94 and 151

AGENDA

8:45-9:00	Coffee and Conversation
9:00	Welcome and Overview of the Agenda
9:15-9:25	Brief History of the Original Evaluation Project
9:25-9:45	Review Current Project • Purpose • Process • Major Activities • Results-Report of Input Session Recommendations
9:45-10:15	Survey Results
10:15-Noon	Evaluation Design • Design Framework • Major Concepts Used to Create the Design • Components of the Evaluation System
Noon-1:00	Lunch
1:00-2:30	Discuss the Components of the Evaluation System • Discuss • Refine • Expand
2:30-3:00	Next Steps in the Project
3:00	Adjourn

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